SOCIETY OF ACTUARIES

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OASDI Trust Fund

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TABLE II.D2
Selected Demographic Assumptions by Alternative, Calendar Years 1940–2075

Calendar Year	Life Expectancy* (At Age 65) Male	Female	Calendar Year	Life Expectancy* (At Age 65) Male	Female
Historical Data:			Low Cost:		
1940	11.9	13.4	1998	15.6	19.1
1945	12.6	14.4	2000	15.7	19.1
1950	12.8	15.1	2005	15.7	18.9
1955	13.1	15.6	2010	15.7	18.8
1960	12.9	15.9	2015	15.7	18.8
1965	12.9	16.3	2020	15.8	18.9
1970	13.1	17.1	2025	15.9	19.0
1975	13.7	18.0	2030	16.0	19.0
1976	13.7	18.1	2035	16.1	19.1
1977	13.9	18.3	2040	16.1	19.2
1978	13.9	18.3	2045	16.2	19.3
1979	14.2	18.6	2050	16.3	19.4
1980	14.0	18.4	2055	16.3	19.4
1981	14.2	18.6	2060	16.4	19.5
1982	14.5	18.8	2065	16.5	19.6
1983	14.3	18.6	2070	16.6	19.7
1984	14.4	18.7	2075	16.6	19.7
1985	14.4	18.6			
1986	14.5	18.7			
1987	14.6	18.7			
1988	14.6	18.7			
1989	14.8	18.9			
1990	15.0	19.0			
1991	15.1	19.1			
1992	15.2	19.2			
1993	15.1	19.0			
1994	15.3	19.0			
1995	15.3	19.0			
1996†	15.8	19.1			
1997†	15.6	19.2			
Intermediate:			High Cost:		
1998	15.7	19.2	1998	15.7	19.3
2000	15.8	19.3	2000	16.0	19.5
2005	16.1	19.4	2005	16.5	19.9
2010	16.3	19.5	2010	16.8	20.2
2015	16.5	19.7	2015	17.2	20.6
2020	16.7	19.9	2020	17.6	21.0
2025	16.9	20.1	2025	18.0	21.4
2030	17.1	20.4	2030	18.4	21.8
2035	17.3	20.6	2035	18.8	22.2
2040	17.5	20.8	2040	19.2	22.7
2045	17.7	21.0	2045	19.6	23.1
2050	17.9	21.2	2050	20.0	23.5
2055	18.1	21.4	2055	20.4	23.8
2060	18.3	21.6	2060	20.7	24.2
2065	18.5	21.8	2065	21.1	24.6
2070	18.7	22.0	2070	21.5	25.0
2075	18.8	22.2	2075	21.9	25.4

*The life expectancy for any year is the average number of years of life remaining for a person if that person were to experience the death rates by age observed in, or assumed for, the selected year.
†Preliminary or estimated.

SMI Trust Fund:

Estimates under Alternative II Assumption for Aged and Disabled (Excluding End-Stage Renal Disease) Enrollees

Editor's Note: *The following excerpt is taken from Section II.F, "Actuarial Methodology and Principal Assumptions for Cost Estimates for the Supplementary Medical Insurance Program," in the* 1998 Annual Report of the Board of Trustees of the Federal Supplementary Medical Insurance Trust Fund. *Copies of the SMI 1998 Annual Report are available from Sol Mussey (410– 786–6386).*

. . .

Estimates under the intermediate assumptions for aged and disabled enrollees—excluding disabled persons with end-stage renal disease (ESRD)—are prepared by calculating allowed charges incurred per enrollee in a recent year (the 12-month period ending June 30, 1996, for this report) for each category of enrollees and projecting these charges through the estimating period. The per enrollee charges are then converted to reimbursement amounts by subtracting the per enrollee values of the deductible and coinsurance. Aggregate reimbursement amounts are calculated by multiplying the per enrollee reimbursement amounts by the projected enrollment. In order to estimate cash disbursements, an allowance is made for the delay between receipt of service and payment therefor.

Disabled persons with ESRD have per enrollee costs which are substantially higher and quite different in nature from those of most other disabled persons. Hence, program costs for them have been excluded from the analysis in this section and are included in a later section.

TABLE II.F4
Components of Increases in Total Allowed Charges per Enrollee for Physician Services: Intermediate Estimates (in percent)

Year Ending June 30	Increase Due to Price Changes: Increase in Physician Fee Component of CPI	Increase Due to Price Changes: Net Increase in Allowed Fees	Residual Factors	Total Increase in Allowed Charges per Enrollee*
Aged:				
1997	3.2%	0.5%	0.5%	1.0%
1998	2.7	1.0	2.1	3.1
1999	3.5	1.3	0.0	1.3
2000	3.9	–0.9	–1.4	–2.3
2001	4.2	–0.3	1.9	1.6
2002	4.7	0.0	4.2	4.2
2003	4.8	0.6	3.7	4.3
2004	4.9	1.1	3.5	4.6
2005	4.9	1.2	3.7	4.9
2006	5.0	1.1	4.0	5.1
2007	5.1	1.4	4.1	5.6
2008	5.1	2.0	4.0	6.1
Disabled (excluding ESRD):				
1997	3.2%	0.5%	1.4%	1.9%
1998	2.7	1.0	3.2	4.2
1999	3.5	1.3	–2.8	–1.5
2000	3.9	–0.9	–5.9	–6.7
2001	4.2	–0.3	–0.3	–0.6
2002	4.7	0.0	7.3	7.3
2003	4.8	0.6	3.9	4.5
2004	4.9	1.1	2.9	4.0
2005	4.9	1.2	3.0	4.2
2006	5.0	1.1	3.4	4.5
2007	5.1	1.4	4.0	5.5
2008	5.1	2.0	3.9	6.0

* Equals combined increases in allowed fees and residual factors.

Establishing a Projection Base

Physician Services

Reimbursement amounts for physician services (and smaller amounts for other services such as laboratory tests, DME and supplies) are paid through organizations acting for HCFA, referred to as "carriers." The carriers determine whether billed services are covered under the program and determine the allowed charges for the services. A record of the amount reimbursed after reduction for coinsurance and the deductible is transmitted to HCFA.

A sample of records is drawn for 0.1 percent of aged beneficiaries and tabulated by date of service, thus providing a database which is constructed on an incurred basis. Certain minor adjustments are made to the tabulated sample data to correct for biases and random fluctuations inherent in the sampling process. Having the data on an incurred basis is necessary to meet the statutory requirement that the program be financed on this basis.

As a check on the validity of the projection base, incurred reimbursement

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amounts are compared with cash expenditures reported by the carriers through an independent reporting system. In a program with continuously increasing incurred reimbursement amounts, cash payments are expected to be slightly lower than incurred expenses (except in the first year of coverage of a service or group of beneficiaries, when the difference should be substantial). These differences between cash and incurred reimbursement amounts occur because of the lag between receipt of services and payment therefor.

Institutional and Other Services

Reimbursement amounts for institutional services under the SMI program are paid by the same fiscal intermediaries that pay for HI services. The principal institutional services covered under the SMI program are outpatient hospital services.

Reimbursements for institutional services occur in two stages. First, provider bills are submitted to the intermediaries, and interim payments are made on the basis of these bills. The second stage occurs at the close of a provider's accounting period, when a cost report is submitted, and lump-sum payments or recoveries are made to correct for the difference between interim payments and final settlement amounts for providing covered services (net of coinsurance and deductible amounts). Tabulations of a sample of the provider bills are prepared by date of service and the lump-sum settlements, which are reported on a cash basis, are adjusted (using approximations) to allocate them to the time of service.

Group practice prepayment plans, which are not reimbursed through carriers, are reimbursed directly by HCFA on either a reasonable cost or capitation basis. Comprehensive data on such direct reimbursements are available on a cash basis. Certain approximations must be made to allocate expenses to the period when services were rendered.

TABLE II.F6
Increases in Recognized Charges and Costs per Enrollee for Institutional and Other Services: Intermediate Estimates (in percent)

Year Ending June 30	Outpatient Hospital	Home Health Agency*	Group Practice Prepayment Plan	Independent Lab
Aged:				
1997	4.2%	5.4%	22.0%	-2.3%
1998	1.0	‡	41.1	2.3
1999	1.3	95.5‡	31.4	-0.6
2000	3.4	-1.7	28.6	-1.7
2001	7.0	1.5	19.0	2.1
2002	8.9	7.5	5.6	4.4
2003	8.9	7.1	7.2	5.0
2004	9.3	6.4	10.9	5.9
2005	9.7	6.3	11.9	6.4
2006	9.9	6.1	8.8	6.8
2007	10.0	5.8	8.8	7.0
2008	10.0	5.8	10.0	7.0
Disabled (excluding ESRD):				
1997	3.8%	0.0%	87.5%	2.9%
1998	-2.5	‡	45.5	4.0
1999	-1.9	98.5‡	32.2	-1.2
2000	0.7	-1.3	23.4	-5.3
2001	6.9	1.8	20.6	3.0
2002	14.6	7.6	12.1	12.9
2003	10.9	6.6	11.5	9.8
2004	11.1	5.9	15.0	9.1
2005	11.7	5.5	15.7	9.6
2006	11.9	5.1	12.8	10.4
2007	12.2	4.5	12.8	10.8
2008	12.2	4.6	12.8	10.8

* From July 1, 1981 to December 31, 1997, home health agency services have been almost exclusively provided by the Medicare HI program. However, for those SMI enrollees not entitled to HI, the coverage of these services is provided by the SMI program. During that time, since all SMI disabled enrollees are entitled to HI, their coverage of these services is provided by the HI program. The extreme variation in SMI home health cost increases is largely attributable to random fluctuations in a service used by relatively few beneficiaries (see Table II.F2 not shown).

‡ Effective January 1, 1998, the coverage of a majority of home health agency services for those individuals entitled to HI and enrolled in SMI will be transferred from the HI program to the SMI program. As a result, as of January 1, 1998, there will be a large increase in SMI expenditures for these services for the aged enrollees, and SMI coverage for these services will resume for disabled enrollees.

Per Enrollee Increases

Physician Services

Per enrollee charges for physician services are affected by a variety of factors. One factor, increase in average charge per service, can be identified explicitly. Others can be recognized only by the fact that the increase in the average charge per service does not explain all of the increase in per enrollee charges year-to-year.

The increase in the average charge per service is an important factor creating the increase in charges per enrollee. The physician fee component of the CPI provides an approximation of the historical increases in submitted charge per service.

Projected increases in total allowed charges per enrollee are shown in Table II.F4 (see page 8). Column 1 of Table II.F4 shows the projected increases in the physician fee component of the CPI

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in each of the yeaars ending June 30, 1997 through June 30, 2008. It represents an estimate of projected increases in the charges for all physician services (not only Medicare services), and as such, represents the increase in submitted fees. Column 2 shows the projected net increases in allowed charges, and Column 3 shows the increases due to residual causes. The last column is the compounded product of Columns 2 and 3.

Institutional and Other Services

The historical increases in charges and costs per enrollee for institutional and other services are shown in Table II.F5 (not included here), and the projected increases are shown in Table II.F6 (see page 9). The increases shown in Table II.F6 reflect the impact of the provisions in the Balanced Budget Act of 1997. These include the transfer of a majority of home health agency services from the HI trust fund to the SMI trust fund starting in 1998 and implementation of a prospective payment system for services performed in the outpatient department of a hospital starting in 1999. All benefit payments for those home health agency services being transferred will be paid out of the SMI trust fund beginning January 1998. However, for the six-year period 1998 through 2003, sums of money will also be transferred from the HI trust fund to the SMI trust fund to phase in the financial impact of the transfer of these services. It should be noted that in Table II.F6, and elsewhere in this section with the exception of Table II.F11 (not included here), the estimates for home health agency costs for 1998 through 2003 are those associated with the payment of benefits and are not adjusted for the funds transferred from the HI trust fund.

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Your help and participation are needed and welcomed. All articles will include a by-line to give you full credit for your effort. *News* is pleased to publish articles in a second language if a translation is provided by the author. For those of you interested in working on the *News*, several Associate Editors are needed to handle various specialty areas such as meetings, seminars, symposia, continuing education meetings, teleconferences, and cassettes (audio and video) for Enrolled Actuaries, new pension study notes, new research and studies by Society committee, and so on. If you would like to submit an article or be an Associate Editor, please call me at 860–521–8400.

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